COMPARISON OF COGNITIVE AND PERSONALITY DIMENSIONS BETWEEN STUDENTS OF YOGIC (GURUKUL) AND MODERN EDUCATION SYSTEM

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INTRODUCTION

Education is a systematic process through which a child or an adult acquires knowledge, experience, skill and social attitude. Education is the only means for the harmonious development of physical, mental, spiritual, and social faculties, the four major dimensions of life. In other words, it may be said that the physical, intellectual, emotional and ethical integration of the individual into a complete man is the fundamental aim of education.

Education system which was evolved first in ancient India is known as the Vedic system of education as it emerged from the Vedas. They are supposed to be the source of Indian philosophy in life. In the present scenario majorly two systems of education are prevailing: yogic and modern education system.

(I) YOGIC EDUCATION SYSTEM: This System is essentially based on practices of the Vedas. The key features of yoga based life style are (a) Yama (social discipline) (b) Niyam (self discipline) (c) Asanas (physical postures) (d) Pranayama (voluntary regulation of breathing) (e) Pratyahar (control of sense and mind) (f) Dharna (concentration) (g) Dhyana (meditation) (H) Samadhi (super conscious). The term "yoga" and the English word "yoke" are derived from Sanskrit root "yuj" which means union. Yoga is a psycho-somatic-spiritual discipline for achieving union & harmony between our mind, body and soul and the ultimate union of our individual consciousness with the Universal consciousness (Madanmohan, et al. 2008). Yoga is a mind-body technique which involves relaxation, meditation and a set of physical exercises performed in sync with breathing. Being holistic, it is the best means for achieving physical, mental, social and spiritual well being of the practitioners. Yoga is a physical, mental and spiritual practice or discipline which originated in India. There is a broad variety of yogic schools which are usually based on Buddhism, Jainism and Hinduism. The present research is based on 'Ashtanga' (Rajyog yogic system) which is a part of Hinduism school of yoga. Hinduism yogic system is usually based on two classifications: (a) Classification based on way of spiritual life (b) Classification based on Mind and Body

(a) Classification based on way of spiritual life:

- **Bhakti yoga:** (worship)
- **Karma yoga:** (work)
- **Gyan yoga:** (knowledge)

(b) Classification based on Mind and Body:

(i) Hatha yoga: This yoga emphasizes the most on exercise of physical body. Hatha Yoga has been commonly used to describe the practice of asana (postures). The syllable 'ha' denotes the pranic (vital) force governing the physical body and 'tha' denotes the chitta (mental) force thus making Hatha Yoga a catalyst to an awakening of the two energies that govern our lives. More correctly, the technique described in Hatha Yoga purifies the body systems and focuses the mind in preparation for more advanced chakra and kundalini practice.

(ii) Raja yoga: This system emphasizes the most on exercise of physical, mental and spiritual dimensions of a person. Patanjali's Raja Yoga is generally termed as the ‘Ashtanga Yoga’ or ‘the Yoga of Eight Limbs’, through the practice of which freedom is achieved. These eight limbs are:

1. **Yama** (Social disciplining)
    - Ahimsa (non-violence)
    - Satya (truth)
    - Asteya (non-stealing)
    - Brahmacharya (continence)
    - Aparigraha (non-avariciousness)
2. **Niyama** (Self disciplining)
    - Saucha (purity)
    - Santosha (contentment)
    - Tapas (austerities)
    - Svadhyaya (self study)
    - Ishvarapranidhana (surrender to God)
3. **Asana** (Yoga posture)

4. **Pranayama** (Breathing exercise)
5. **Pratyahara** (Control of senses and mind)
6. **Dharana** (concentration)
7. **Dhyana** (meditation)
8. **Samadhi** (super conscious state)

These eight limbs have been scientifically arranged and are the natural steps in the ladder which take man from his human to the real divine nature. Gurukul education is a learning system based on yogic practices of the Vedas (Nagendra, 2005). Yogic education system is assuming importance in improving mental health and quality of life. Its main aim is to unite the individual self with the Divine or Supreme self. Through Yoga one gets transformed from beast to a normal man, further to a great man, superman and finally Divine Being, one gets unified with Brahman or Reality or Divine. Usually one enjoys absolute freedom through Yogic education system. It is a conscious process for accelerating the growth and it is the art of living which is concerned with the evolution of mind and body. Therefore, yoga incorporates a system of disciplines for furthering an integrated development of all the aspects of an individual. Scholarly life is the best period of life to get induced into yoga which helps to develop physical stamina, emotional stability and intellectual and creative talents. It is a unified system for developing the balanced personality of an individual. The wisdom and practices of Yoga in Gurukul Education System are time tested and have been preserved over a long period of time. Traditionally, it is believed that Gurukul Education System bestows great merits on society and improves many aspects of students' life, including improvement in their cognitive functions. The concept of Gurukul Education System proposes a novel yoga-based framework for development of the psycho-social life skills defined by World Health Organization. Yogic Education proposes a methodology for Health, based on Yoga with a view to maintain lifelong wellbeing. The framework of Yogic Education includes a number of components: citizenship education, physical education, emotional education, education for self awareness, and education for being. The proposed approach is accessible to all, ensuring protection of the physical, psychological and social integrity of each individual (Lazarevic, 2012). Each component has its own distinct emphasis regarding the relative content of physical posture and exercises (asanas), breathing techniques (pranayama), deep relaxation, and meditation practices which cultivate awareness and ultimately

more profound state of consciousness. The physical exercises (asanas) may increase person's physical flexibility, Coordination and strength, while the breathing practices and meditation may calm and focus the mind to develop greater awareness (Nagendra, 2005). The main goals of "Yogic System in Daily Life" are to enhance Physical, Mental, Social and Spiritual Health, Self-Realisation or realization of the Divine within us. Desikachar, Bragdon and Bossart (2005) show that Sustained practice of yoga leads to important outcomes such as changes in life perspective, self-awareness and an improved sense of energy to live life fully with genuine enjoyment. Many people identify yoga only with asanas, the physical practice of yoga, but asanas is just one of the many tools used for healing the individual; only three of the 196 sutras mention asana and the remainder of the sutras discuss the other components of yoga including conscious breathing, meditation, lifestyle and diet changes, visualization and the use of sound, among many others (Desikachar, Bragdon & Bossart, 2005). Yoga as a therapy uses physical postures (asanas), breathing exercises (Pranayama) and meditation techniques. Independently or comprehensively, yoga has been shown to improve several physiological functions and improve cognitive domains such as executive functions, attention, intelligence, memory and concentration (Udupa et al., 2003). In Western contemporary settings, yoga tends to be synonymous with yoga postures, breathing, and some meditation practices. Historically, however, the practice of yoga was understood to be much broader and more comprehensive, including a wider range of techniques to promote wellbeing and balance among mind–brain–body functions. These included paths oriented to service, devotion, intellectual discernment and meditation, and each offered practices to mitigate suffering and produce higher levels of consciousness (Feuerstein, 2011). Yoga practice has influence on Physical and Psychological outcomes that enhance muscular strength and body flexibility, promotes and improves respiratory and cardiovascular function, promotes recovery from and treatment of addiction, reduces stress, anxiety, depression and chronic pain, improves sleep patterns, and enhances the overall well-being and quality of life.

Purposes of Yogic Education System:

- To develop the accurate ways of thinking.
- To develop the social values.
- To provide a set of suitable tendencies.
- To develop the artistic and aesthetic aspects of life.

- To develop the social senses.
- To develop the individual-social concurrence.
- To develop the physical wellbeing.
- To develop a steady philosophy of life.
- To develop the feeling of spirituality.
- To promote the Social Efficiency and Welfare.
- Preservation and Promotion of culture.
- Overall development of Personality and character.
- Intellectual Development.
- To develop the way of living.

Characteristics of Yogic Education System:

- Perfection in Education.
- To liberate the soul from worldly bondages.
- Equal rights to education for all.
- Teacher as an ideal.
- Education only a means and not an end in itself.

Yogic education System has a prominent place in society. This system of education is fully capable for the growth and development of physical, intellectual, spiritual faculties of an individual. It also helps in the development of moral and social character, preservation of culture and cognitive, conative and affective aspects of life. Improvement of the physical and mental health and promotion of well-being by six months of yoga practice in adults has been proved in the study of Uma, et al. (1989). By means of yogic education system efforts are being made to infuse- Satyam Shivam and Sundaram in the character of the students and this makes the yogic education system extremely important to be followed.

(II) MODERN EDUCATION SYSTEM: Modern education system was introduced by the British Viceroy, Lord Macaulay in the year 1835, in India. It was the introduction of Wood's dispatch of 1854, known as Magna Carta of Indian education that laid the foundation of present system of education which changed the scenario. The main purpose of it was to prepare Indian

Clerks for running local administration. Under it the means of school education were vernacular languages, while the higher education was granted in English only. British government started giving funds to indigenous schools in need of help and slowly some of the schools became government aided. The Modern education system primarily focuses on 'bread earning' and ignores brain development.

Modern education system is based on pragmatic education as active, experimental and utilizes scientific and technical knowledge that developed in industrialized countries. But this system does not judge a student's abilities, skills, emotional intelligence and aptitude. This defeats the purpose of education to improve the mental and spiritual wellbeing of an individual.

Purposes of Modern Education System

- Development of personality.
- Development of child's power and abilities.
- Development of co-operation and harmony.
- Modern Education for good Citizenship.
- Modern Education for Vocational Preparation.
- To develop the scientific aptitude.
- To modernize the country.
- To develop Human Resources
- To develop Democratic Values in the People

Characteristics of Modern Education System

- Pragmatic education (Learning by doing, Active learning)
- Student-centric
- Freedom of thought
- Development of interest and need of students
- Use of Computing devices in Modern Education
- Adaptive learning
- Performance-based assessments
- Collaborative learning

- Post secondary education and training
- Academic knowledge and skills

Modern education has brought social awakening and awareness amongst people all over India. Recent revolutionary developments in the areas of science and technology, information technology and mass media have brought tremendous changes in the life style and working of people. Any kind of information related to any sphere of knowledge is easily accessible at the door-step. It has made the present generation much more informed about the developments happening anywhere in the whole world and knowledgeable than previous generations. But it is also true that only gaining knowledge is not enough for dynamic personality and constructive society.

COGNITION: Cognition is the collection of mental processes and activities used in perceiving, remembering, thinking, and understanding. It is related to perceptual processes, attention, memory, imagery, language, concept formation, problem solving, creativity, reasoning, decision making, cognitive development and cognitive styles. The word cognition includes both the psychic and conscious forces which have the capacity to grasp, to be alert, to learn, to be attentive and to understand. To be aware of the Self, cognitive abilities are essential. It is cognition which is significant in both Internal and external pursuits. Only through cognition both internal and external knowledge can be obtained and understood properly. Therefore, it is essential to understand and develop cognitive abilities through which one can grow spiritually. Even Devas glorified in the Vedas are various powers of cognition only.

ATTENTION: Attention is a cognitive process. Directing the attention to one thing in particular allows us to learn more about it. Depending on the kind of task the attention is focused on, determines which cognitive resource will be used. The different types of attention are: Sustained Attention, Divided Attention and Selective Attention.

Selective attention is simply the act of focusing on a particular object for a period of time, while cumulatively ignoring irrelevant information that is also occurring. This occurs on a daily basis and can be seen in how people pay attention to something and how much attention is given at that time.

Usually attention is increased by Yogic Education System. In Yogic schools students' sustained attention grows through daily Yogic practices of Sandhyopasana that they are supposed to do thrice a day. Sandhyopasana consists mainly of two things- Pranayama and Dhyana. Pranayama has to be performed with stoppage of breath, inhalation and exhalation. Dhyana includes chanting Gayatri Mantra with two other Mantras, Omkara and Vyahati. Dharmaçastra prescribes all these things for Gurukula students thrice a day (morning, afternoon and evening). Meditation in Sandhyopasana is to concentrate on repeating the Mantra which thereby develops sustained attention. Attention is an essential element of cognition and has been characterized in two ways, that is, either as a resource or capacity or as a skill of resource development. Sustained attention is the capacity to attend to a task in hand for a required period of time. It is closely associated with task difficulty or complexity. Sustaining attention is easier for simple tasks than complex tasks. It is closely associated with the mental effort required by the task in hand (Posner, 1978). Many papers have been published analyzing the effect of different aspects of yoga including physical postures and meditation on sustained attention. Special physical postures (asanas), voluntary regulation of breathing (pranayama), maintaining silence and visual focusing exercises improve attention span in school children (Telles, et al., 1993). In addition to Gayatri meditation and vedic chanting, the Gurukul Education System group usually participate in yogic practices such as asanas, pranayama, and puja, which have the power to calm the mind and bring the attention from past or future to the present moment. This may also have contributed to the observed growth of attention.

Reduced anxiety can improve performance on tasks requiring sustained attention (Saltz, Manifest, 1970). Gurukul Education System improves sustained attention in school boys (Rangan, Nagendra & Bhatt, 2009). Yogic practices like asanas, kriyas, mudras, bandhans and meditation techniques help the subjects to develop awareness within them by improving their intellectual and somatic functions. Various research studies concluded that yoga and meditation influenced attention positively. Transcendental Meditation is reported to improve short term remembrance. The investigation made by various researches proved that yogic practice improves memory of the School children. Selective attention, which requires individuals to focus upon target stimuli while ignoring other stimuli, is explored in an effort to understand the relationship between yoga and attention. The holistic practice of yoga includes ethical, physical, emotional, and mental disciplines as well as the attainment of enlightenment (Burkett, 2006).

MEMORY: Memory is a cognitive function of the ability to retain and recall information of past thing**.** Memory is the sum totals of what we remember, and gives us the capability to learn and adapt from previous experiences as well as to build relationships. It is the ability to remember past experiences, and the power or process of recalling to mind previously learned facts, experiences, impressions, skills and habits. It is the store of things learned and retained from our activity or experience, as evidenced by modification of structure or behaviour, or by recall and recognition. There are three types of memory: Sensory memory, Short term memory and Long term memory. Short-term memory is that brief period of time where one can recall information for what he just exposed to. Short-Term often encompasses anywhere from 30 seconds to a few days, depending on who is using the term. Most people can repeat 6 or 7 digits or letters perfectly almost every time, but few can consistently repeat more than 7.

Smati is the Vedic word for memory. "Smati is not forgetting the experienced things" says Yoga Sutra. Yoga and memory are highly interlinked. "Through Yoga memory grows and through memory Yoga also grows". Yoga Sutra says that Yogic education system grows through memory. This describes how through Yoga practices one achieves clarity of memory and how through clarity of memory one grows further in Yoga. Yogic education system has various Yoga practices which facilitate growth of memory. The very fact that Vedic education is mainly through hearing which makes one aware and alert so that memory starts to grow. Memory is perfectly maintained through redundancy. There are various techniques of redundancy in the Yogic system such as japa, Karma and Dhyana. The fact that the 28Vedas remained unchanged for several millennia is proof of the tremendous sincerity shown to memory in the Gurukula system. There are two memory techniques in the Yogic system- 'Sande' and 'Tiruve'. Sande is to just repeat several times what the Guru says. After several repetitions one starts to recite by oneself ten times every day for ten days. After the completion of ten days one continues to chant once a day for several months. These techniques increase students' memory power. According to Yogic lore, memory is formed through prior experiences, and is a process of storing perception and experience. According to the Upanishad the personality has five adjuncts- physical, vital, psyche, intelligence and bliss. Each and every cell on the physical level possesses memory. The Gurukul Education System students' have shown more significant result on memory test may

also have been due to their regular pranayama practice (Naveen, et al., 1997). The Gurukul Education System meant for total personality development adopting yoga way of life is more effective in enhancing visual and verbal memory scores than the Modern education system (Rangan, Nagendra & Bhatt, 2009). Gurukul Education System is a learning system based on the Vedas which includes many yogic practices. It has more element of yoga than the Modern education system. In the words of an ancient Indian saint Vasishta, yoga is any effort to calm the mind (Nagendra, 2005). Gurukul Education System has many practices in general to calm the mind like asanas, chanting of mantras, meditation and puja. Generally when the mind is calm, it helps to improve memory (Saltz, 1970). Many people are doing yoga daily and reporting its positive effects in their daily activities. The effect of yogic exercises on the mind is said to have immediate effects (Kocher, 1979) used both meaningful words and nonsense syllables to test immediate (short-term) verbal memory abilities before and after a one-month period of yoga training for college-aged males and females. The results, though incomplete, suggested that yoga did facilitate immediate memory performance more than the absence of yoga, and that the benefit was greater for males than for females (Anantharaman & Kabir, 1984). Studies of Kimbrough, Balkin and Rancich (2007) reported that memory span and attention measured before and after yoga training changed positively as a result of yoga training. Yoga positions positively influence memory and attention due to increased blood flow to the brain. Kauts and Sharma (2012) found that with intervention of the yoga module, the Concentration and Short Term Memory improve which may positively affect performance of the students. Practiced yoga module yielded higher concentration levels and exhibited better short term memory. Yoga breathing through a particular nostril increased spatial memory scores (Naveen, et al., 1997*).*

Yogic practices lead to a feeling of well being, reduction in body weight, increased vital capacity and acceleration in endocrinal functions occurring at physiological and psychological levels. There is an improvement in memory, fatigue rate and reduced neuroticism index also (Singh & Udupa, 1977). Transcendental Meditation is reported to improve short term memory. The investigation made by various researches proved that yogic practice improves memory of the school children. Yogic practices were found to be effective in increasing the memory power among students of experimental group as compared to those of the control group who were not exposed to any training in yogic practices. Yogic practices were found to be effective in increase of memory among girls of experimental group as compared to those of the control group who

were not exposed to any training in yogic practices. Yogic practices were found to be effective in increase of memory among boys of experimental group as compared to those of the control group who were not exposed to any training in yogic practices, (Banerjee, 2014). Correlations between attention and gunas are related to cognitive characteristics, (Sitamma, 1997) intelligence, memory, and attention-concentration (Sitamma & Rao, 1996). Negative correlations are reported between tamas and short-term memory, intelligence and attention-concentration, and positive correlations between sattva and general intelligence, short-term memory and attention-concentration. Ability to focus attention correlates positively with sattva, and negatively with tamas.

Gender is also an important variable and it has been reported that females show less lateral brain specialization than do males, but the Difference in degree of brain lateralization is assumed to produce gender differences in cognitive processing. Although girls generally do better on verbal tasks, and boys do better on some types of mathematical tasks, the differences are small level (Hyde, Fennema, & Lamon, 1990; Hyde & Linn, 1988). Other analyses of gender differences from a biological perspective have centered on hormonal influences and estimates of heritability. Hormones affect the organization of the neural substrates of the brain, including lateralization of brain function. It has been reported that females show less lateral brain specialization than do males, but the differences are small and some studies find no such difference (Bryden, 1988; Halpern, 1992; Kinsbourne & Hiscock, 1983)

PERSONALITY: (GUNAS) Personality is the dynamic organization within the individual of those psycho-physical systems that determine his characteristic, behavior and thought. Humanistic and the Indian approach to personality are usually based on gunas. Gunas means 'string' or 'a single thread or strand of a cord. In more abstract it may mean 'a subdivision, species, kind, quality', or an operational principle or tendency. The entire creation and its process of evolution are carried out by three major gunas. In Samkhya philosophy, there are three major gunas that serve as the fundamental operating principles or 'tendencies' of prakrti (universal nature) which are called:

1. Sattva guna. (associated with creation)
2. Rajas guna. (associated with preservation)
3. Tamas guna. (associated with destruction)

Sattva: Sattva is a state of harmony, balance, joy and intelligence. Sattva is the guna that yogi and yogis achieve and it reduces rajas and tamas making liberation possible. To increase sattva guna one should reduce both rajas and tamas and enjoy activities and environments that produce joy and positive thoughts. Sattvic foods include whole grains and fresh fruits and vegetables that grow above the ground. All of the yogic practices were developed to create sattva in the mind and body. Thus, practicing yoga and leading a yogic lifestyle strongly cultivates sattva.

Rajas: Rajas is a state of energy, action, change and movement. The nature of rajas is of attraction, longing and attachment and rajas strongly binds us with the achievement of life. To reduce rajas one should avoid Rajasic foods, over exercising, over work, loud music, excessive thinking and consuming excessive material goods. Rajasic foods include fried foods, spicy foods, and stimulants.

Tamas: Tamas is a state of darkness, inertia, inactivity and materiality. Tamas manifests from ignorance and deludes all beings from their spiritual truths. To reduce Tamas one should avoid tamasic foods, over sleeping, over eating, inactivity, passivity and fearful situations. Tamasic foods include heavy meats and foods that are spoiled, chemically treated, processed or refined.

Yoga practice has effects in reducing blood pressure and improving performance in a task requiring attention, as well as improving bimanual dexterity and visuo-motor coordination (Telles et al., 2014). Researchers have noticed that people who practice Yoga score higher on personality traits of extraversion and score lower on personality traits of excitability, aggressiveness, openness, and emotionality (Schell, et al., 1994). The practice of Yoga can have influence on Gunas (Personality) in males and females (Deshpande, Nagendra & Nagarathna, 2009). Relationships among spiritual and religious practices, health, and well-being generally have been pointed out by researchers, who have also observed the relevance of Yoga towards harmonious development of personality, human mind, and body. Yoga practice can develop new paths of processing information towards originality and creative cognitive processes, which can be of high relevance in human development, contributing to elaborate, unexpected behavioral

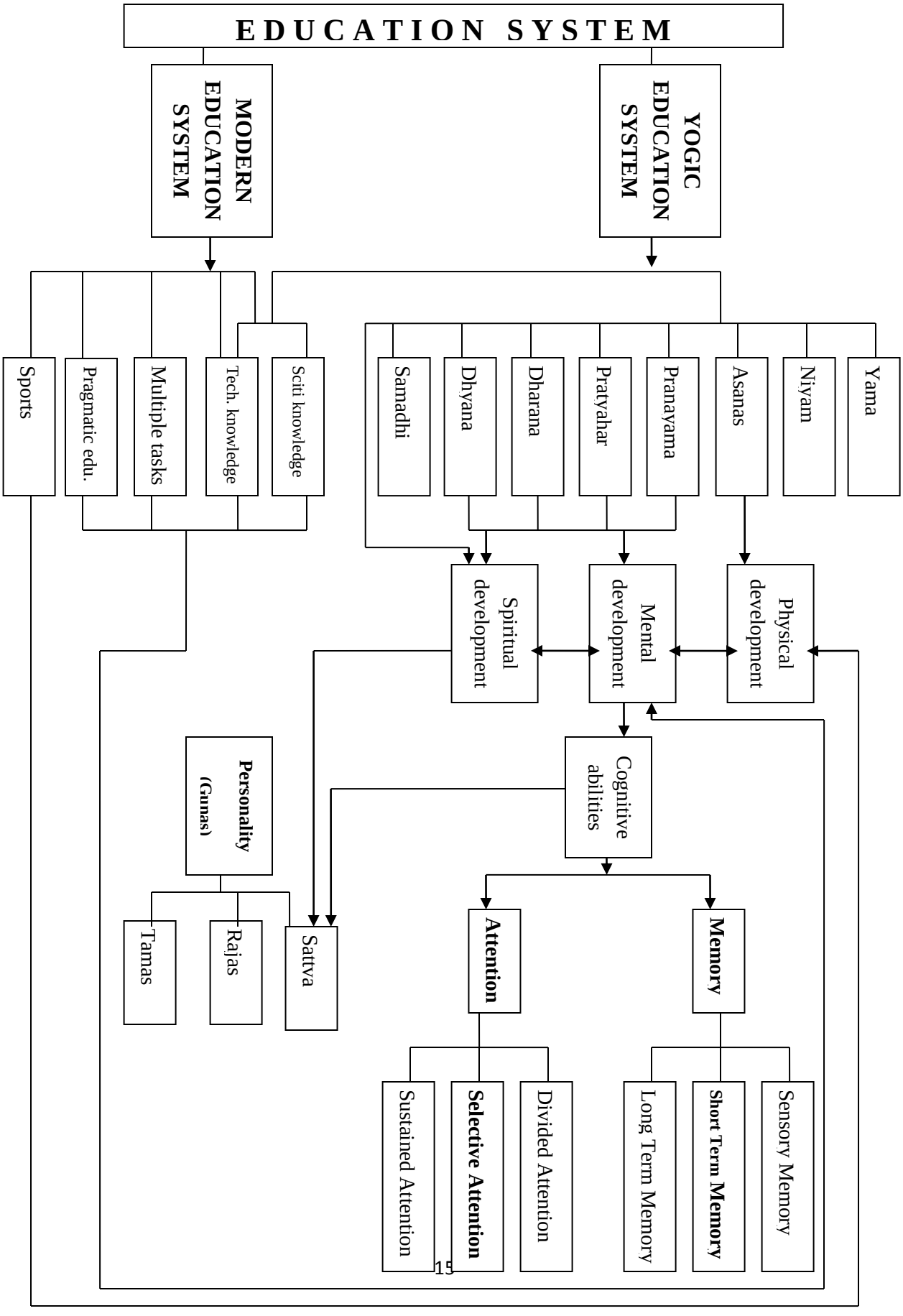
models and unexplored cognitive paths, to cope with difficulties that cannot be overcome only by using logic, and concrete processing (Cavallera, 2014). The maha mantra, which is postulated by the Vedas, was hypothesized to increase the mind's sattvic qualities and decrease its rajasic and tamasic qualities. A different combination of sounds that were constituted the alternate mantra in the experimental design would not be expected to have the same effects as the maha mantra has (Wolf & Neil, 2003).

The following studies are those on which the conceptual framework of the present study is formed.

Author's name	Years	Result
Naveen, et al.	1997	Found that voluntary regulation of breathing (Pranayama) improves the memory.
Telles, et al.	1993	Found that physical postures (Asanas), voluntary regulation of breathing (Pranayama) maintenance of silence, and visual focusing exercises improve the attention span in the school children.
Nagendra And Telles	1999	Showed that special physical postures (Asana), voluntary regulation of breathing (Pranayama), maintenance of silence and visual focusing exercises improve memory in school children.
Aminabhavi	1996	Reported in study that yoga training helped to develop positive attitude and also enhanced the mental health of subjects.

Yadav and kumar	2014	Yoga education is a holistic science. It is a conscious and systematic process for the complete physical, mental, emotional and spiritual development of men.
Dasa	1991	A conducted by the use of mahamantra on 62 volunteers showed that the mahamantra group had increased Sattva and decreased Tamas.
Sitamma & Rao	1996	Found that Gunas are related to cognitive characteristics intelligence, memory, and attention-concentration. Negative correlations are reported between tamas and field independence, short-term memory, intelligence and attention-concentration, and positive correlations between sattva and general intelligence, short-term memory and attention-concentration. Ability to focus attention correlates positively with sattva, and negatively with tamas.
Chidananda	1985	Practice of yoga creates harmony in the physical, vital, mental, psychological and spiritual aspects of the human personality.
Dewey	1938	Dewey has claimed that pragmatism is known as modern education.
The New Education Policy	1986	Emphasis on the socio-economic well being: Creation of an awareness of the physical, social, technological, economic and cultural environment.
Singh	2014	Yoga postures can settle down the restlessness (rajas) in body and mind. Pranayama or breathing exercises oxygenates every cell in body and purity (sattva) and balance. Through Yoga and meditation one could reduce the high tamas and increase sattva.

CONCEPTUAL FRAMEWORK



METHOD

PROBLEM

To study the difference between students of Yogic (Gurukul) and Modern Education System on Cognitive and Personality dimensions (Gunas).

OBJECTIVES

1. To compare the students of Yogic and Modern Education System on Selective Attention.
2. To compare the students of Yogic and Modern Education System on Short Term Memory.
3. To compare the students of Yogic and Modern Education System on different Gunas (Sattva, Rajas and Tamas).
4. To study the effect of gender on selective attention, short term memory and Gunas.
5. To study the interaction effect of Education System and gender on selective attention, short term memory and Gunas.

HYPOTHESES

The following Major hypotheses are formulated for the present study.

1. There will be significant difference between the students of Yogic and Modern Education System on Selective Attention.
2. There will be significant difference between the students of Yogic and Modern Education System on Short Term Memory.
3. There will be no significant difference between the students of Yogic and Modern Education System on Gunas (Sattva, Rajas and Tamas).
4. There will be no significant effect of gender on Selective Attention, Short Term Memory and Gunas.
5. There will be no significant interaction effect of Education System and gender on Selective Attention, Short Term Memory and Gunas.

OPERATIONAL DEFINITION OF THE TERMS USED

Yogic Education System: Yogic Education (Gurukul) System is based on Ashtanga Yoga (Yama, Niyam, Asanas, Pranayama, Pratyahar, Dharana, Dhyan and Samadhi) through which physical, mental and spiritual development is possible of the students.

Modern Education System: Modern education system is based on pragmatic education i.e. experimentalism and utilitarianism etc. With the help of this system physical, mental, spiritual, scientific and industrial development is possible. This system usually includes modern techniques which are based on E-learning, collaborative and interdisciplinary learning etc.

Gender: Gender refers to the sex type of an individual, which is determinate by physiological, hormonal and genetic makeup (xx or xy chromosome) of an individual.

Cognition: Cognition is the set of all mental abilities and processes related to attention, memory, perceptual processes, imagery, production of language, Concept formation, problem solving, creativity, reasoning, judgment and cognitive styles etc.

Short term memory: Short-term memory is the capacity for holding a small amount of information and readily available state for 10 to 30 seconds, or sometimes up to a minute of short period of time.

Selective Attention: Selective attention is simply the act of focusing on a particular object for a period of time, while simultaneously ignoring irrelevant information that is also occurring.

Personality (Gunas): Personality is an individual's characteristic pattern of behaviours thoughts and feelings. Gunas are qualities of the cosmic substance and prakriti. The qualities of nature permeate the totality of consciousness as a whole, and that obviously includes the functioning of human beings within the whole. Usually there are three types of gunas as Sattva, Rajas and Tamas.

JUSTIFICATION OF THE PROBLEM

Education is an integral part of human life which influences cognition and personality of an individual. Education helps in physical, mental, aesthetic, moral, economic, spiritual development of the individual so that one may get rid of one's animal instincts by sublimating the same and may become a civilized person.

The Gurukul Education System, oldest system of education in Indian culture, which incorporates many techniques and exercises for calming the mind and relaxing the body has been found to be most successful. In the age of globalization, Yogic Education has been replaced by Modern Education System and emphasizes more on the production of machine and material. The revolutionary development in science, information technology and mass media has made all kinds of knowledge accessible and organized but it is not guiding people to organize life and to inculcate values. Undoubtedly, Modern Education, which is equally important as yogic education, defines success as the amount of money someone earns and well being but neglects the growth and maturation of personality in terms of a complete man. Therefore yogic education is emerging as a need in the present day world. Government has also proposed to open the yogic schools and to promote the yoga centers to develop the value based culture which may be beneficial for both the gender. Gender is also an important variable. There may be an individual difference between girls and boys in many aspects of life which greatly influence the ways of perceiving, learning, thinking, decision making and personality.

In the age of globalization, it is needless to discuss the importance of modern education system. In the era of technological advancement competition is increasing day by day and the stress is going beyond a limit leading to the problems related to mental and physical health. If modern education system incorporates the essential features of yogic education system in itself, schools would not only produce the machine generating person but a balanced and over all healthy personality would emerge, who would understand and respect the social and moral values too. It is a proven fact that regular practice of yama, niyam, asanas, pranayama, meditation prayer, japa, yoga would be helpful in the harmonious development of the physical, mental, moral and social faculties of life.

News papers report how rapidly technological advancement is taking place but on the other hand cases of rape, theft, abuse etc. cannot be ignored. One reason of such cases is the Tamas guna which is becoming more prominent in our personality. If yogic education is given importance then it would be easier to develop a personality which would not only be helpful in the constructive development of self but society as well. Self in the yogic is not only described as peace, silence and bliss, but also as all potent and as the seed of all knowledge and cognition. Yogic practices like Sandhyopasana, Brahmayajia and Agnikarya can make one to stay in the silent Self which is not only bliss and peace, but also comprehensive, not only a conscious being but also a conscious force, by staying in which one becomes not only peaceful and calm but also fresh and dynamic. Each and every Mantra in the Vedic practices has to be chanted with total concentration on its resonance, which usually seems to help for improving memory and attention. Therefore the present research is an effort to investigate the difference between students of Yogic and Modern Education System on Cognition and Personality dimensions (Gunas).

VARIABLES

Independent Variables

1. **Education System**

(a) Yogic Education System

(b) Modern Education System

2. **Gender**

(a) Boys

(b) Girls

Dependent Variables

1. Selective Attention
2. Short Term Memory
3. Gunas

Relevant Variables

- Age - 18 to 22 years.
- Undergraduate students.
- Residential Students of both the Education Systems.

SAMPLE

In the present research 300 students will be randomly selected from Yogic (Gurukul) and Modern Education System. Undergraduate residential students of both yogic (75 boys and 75 girls) and modern education system (75 boys and 75 girls), age range between 18 to 22 years will be the participants. The sample will be matched on the basis of age, education and socio-economic status. The Sample would be selected from Uttar-Pradesh and adjacent states. The descriptive of sample is as following:

YOGIC EDUCATION SYSTEM (150)

Collage/ Uni.	Population	Girls	Boys	Sample
Patanjali	**100**	**-**	**25**	**25**
Dev Sanskriti	**200**	**50**	**25**	**75**
Gurukul	**100**	**-**	**25**	**25**
Arshya (Sasni)	**100**	**25**	**-**	**25**
Total	**500**	**75**	**75**	**150**

MODERN EDUCATION SYSTEM (150)

College/ Uni.	Population	Girls	Boys	Samples
ALLU.	**100**	**15**	**25**	**40**
B.H.U	**200**	**25**	**25**	**50**
Agra Coll.	**100**	**25**	**15**	**40**
R.B.S. AGRA	**100**	**10**	**10**	**20**
Total	**500**	**75**	**75**	**150**

Total Samples = 300

Inclusion criteria

- Age: 18 to 22 years
- Students from Residential College.
- At least 4 years education from (IX to XII) the same education system.
- High school and Intermediate from CBSE Board.
- High school and Intermediate academic achievement ranges from 60 to 80%.
- Middle socio-economic status (Family Income- Rs.30,000 to 50,000 per month)

Exclusion criteria

- Subjects with any chronic ailment
- Substance abuse
- Smokers

RESEARCH DESIGN

In the present research, 2x2 Factorial Design will be used.

TOOLS

STROOP TEST

Selective Attention will be measured by a Stroop Test. The stroop effect described by Stroop in 1935. In the present research, the Stroop test will be constructed by researcher himself. There will be three cards and each will have 40 items. The first card examines how fast the participant can read words, the second card tests how fast the participants can name the colors on the card, and in the third card the participants will be asked to name the color of the ink in which the words are printed in, ignoring the word that will print for each item. The task will be administered individually. Total 10 colour names will be used. The task is to look at each card, and move down the columns, naming the ink colours, as quickly as possible, within a given time limit.

SHORT TERM MEMORY

By Asthana (1982)

Short Term Memory scale was designed by Asthana (1982). In this scale 24 trigrams prepared in such a way that eight CVCs have an association value of more than 80 (72 to 97; M=81; High association value); eight CVCs have an association value of 45 (moderate average value); and eight CVCs have an association value less than 8 (3 to 13; M= 8.10; low average). These 24 CVCs are randomly assigned to the presentation and test phase.

GITA INVENTORY OF PERSONALITY

By Das (1991)

Gita Inventory of Personality is based on the concept of Gunas (personality) from the Bhagavadgita, a traditional text of yoga. This inventory was developed by Das in 1991 and measures three Gunas containing ten questions that have three response choices. This test has a test-retest of 0.60 with a confidence level of 99% and has been validated. This is a valid tool for identifying the types of personality. The score value of weightage of an item indicating Sattva is 3, for an item indicating Rajas is 2, and for an item indicating Tamas is 1. It classifies people as being predominantly of Sattva, Rajas, or Tamas type, depending on their total score on the test.

SCORING: Scoring will be done according the manual related to the test.

STATISTICAL ANALYSIS OF DATA

t- test and Analysis of variance (ANOVA) will be used in the present research.

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